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PENSOFT

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An annotated catalogue of the types of short-horned grasshoppers (Orthoptera, Caelifera) housed in the Zoological Museum Hamburg (ZMH)

Lara-Sophie Dey[1], Martin Husemann[2]

1 *General Zoology, Martin-Luther University Halle-Wittenberg, Hoher Weg 8, 06120 Halle (Saale), Germany*

2 *Centrum für Naturkunde, University of Hamburg, Martin-Luther-King Platz 3, 20146 Hamburg, Germany*

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Corresponding author: *Martin Husemann* (Martin.Husemann@Uni-Hamburg.de)

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Abstract

Zoological collections remain the main archive of animal life on earth, especially in times of mass extinctions. The most important animals of these collections are the type specimens, which represent the original reference for a species. While a full digitization of most museum collections currently remains utopic, lists of types are an essential resource for researchers to perform taxonomic revisions. Here, we provide an updated type catalogue of the short-horned grasshoppers (Caelifera) housed in the Zoological Museum of Hamburg (ZMH), now part of the Center for Natural History Hamburg (CeNak). This collection comprises 209 type specimens belonging to 128 species: 65 holotypes, three lectotypes, one syntype and a large number of paratypes. We also list topotypes of two species for reasons of completeness but note that they have no formal status. Overall, types of 13 species were added to the collection since the last catalogues in 1968 and 1977 and several corrections to the last catalogues were made. We provide a full bibliography for these species, aiming to provide a comprehensive taxonomic guide to this collection.

Introduction

With 209 type specimens of the suborder Caelifera and more than 100 species of Ensifera (Weidner 1966, new type catalogue in preparation) the collection of the Zoological Museum Hamburg (ZMH), now part of the Center of Natural History Hamburg (CeNak), is among the most important collections in Germany. The collection is currently not digitally available, but the former curator Herbert Weidner had presented a first list including types of 116 species and a second publication with four additions (Weidner and Wagner 1968, Weidner 1977; some of these were missing in the collection, when Weidner wrote his catalogue; further, the status of some species was unclear back then). As part of the DORSA project (Ingrisch et al. 2004), the types of the collection were examined and photographed in 2003; these pictures are available from the DORSA website (https://www.dorsa.de/) and have also been implemented in the Orthoptera Species File (Cigliano et al. 2017). However, since the last update of the type catalogue 40 years have passed, rendering a new list necessary. Hence, we present a new and updated list of type specimens of the suborder Caelifera housed in the ZMH with updated nomenclature, and a bibliography of the original descriptions of all species.

The ZMH Orthoptera collection is of special value as many specialists have worked in the museum and deposited material: the museum houses the type material of many species collected by Hans Fruhstorfer, who mainly worked in Asia and South America (Baur and Coray 2004). Further, Yngve Sjöstedt, a Swedish biologist, who collected material during expeditions to Africa (Sjöstedt 1925), deposited many types in Hamburg. Carl Friedrich Brunner von Wattenwyl, one of the first specialists of the

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Table 1. The table shows all type specimens currently housed in the collection of the ZMH including the original genus and species name, and the currently valid name (SYN = the species is now synonym of the species stated in this line). The type status is presented (H = holotype, P = paratype, PL = paralectotype (author as additional reference in last column), S = syntype, L = lectotype (author as additional reference in last column), T = topotype (recorded for completeness, not regulated by the taxonomic code). The number of present type specimens is given in the column 'count', followed by their gender ('sex'). Author and publication year, as well as the collector, collection year and location are provided. The column 'Weidner', displays if the type had already been recorded in previous catalogues (Weidner & Wagner 1968; Weidner 1977; Y = yes, N = newly reported). Finally, we provide the reference (* Ref.) to the original description of each species; in case of lecto-, paralecto- or topotypes, author and year are presented (# Ref. number).

No.	Genus	Species	Current taxonomy	Type	Count	Sex	Author, year	Collector, year	Location	Weidner	Ref.
Acrididae											
1	*Acanthacris*	*ruficornis yemenita*	SYN *Acanthacris ruficornis ruficornis*	H	1	1♂	Uvarov, 1936	C. Rathjens, 25.05.1931	Arabia, Yemen, Sanaa	Y	*27
2	*Acrida*	*curta*	SYN *Acrida exaltata*	H	1	1♀	Uvarov, 1936	C. Rathjens, 1931	Arabia, Yemen, Sanaa	Y	*27
3	*Adreppus*	*tuberculatus*	-	H	1	1♀	Sjöstedt, 1921	Museum Godeffroy	Australia, Queensland, Peak-Downs	Y	*22
4	*Apalacris*	*gracilis*	-	H	1	1♂	Willemse, 1936	H. Fruhstorfer, Nov. 1895	Sulawesi, Samanga, South Celebes	Y	*36
	Apalacris	*gracilis*	-	P	1	1♂	Willemse, 1936	H. Fruhstorfer, Nov. 1895	Sulawesi, Samanga, South Celebes	Y	*36
	Apalacris	*gracilis*	-	P	4	4♂	Willemse, 1936	H. Fruhstorfer, Jan. 1896	Sulawesi, Patunuang, South Celebes	Y	*36
5	*Apalacris*	*incompleta*	-	H	1	1♀	Willemse, 1936	H. Fruhstorfer, Nov. 1895	Sulawesi, Samanga, South Celebes	Y	*36
6	*Apoboleus*	*affinis*	-	H	1	1♂	Kevan, 1955	Hamb. Angola Expedition, 24.09.1952	Angola, Bengo Province, Piri (Dembos)	Y	*16
	Apoboleus	*affinis*	-	P	7	2♂ 5♀	Kevan, 1955	Hamb. Angola Expedition, 24.09.1952	Angola, Bengo Province, Piri (Dembos)	Y	*16
7	*Apotropis*	*affinis*	SYN *Apotropis tricarinata*	H	1	1♀	Sjöstedt, 1921	Museum Godeffroy	Australia, New South Wales, New Castle	Y	*22
	Apotropis	*affinis*	SYN *Apotropis tricarinata*	P	1	1♂	Sjöstedt, 1921	Museum Godeffroy	Australia, New South Wales, New Castle	Y	*22
8	*Asmara*	*punctata*	*Heteracris punctata*	H	1	1♂	Uvarov, 1936	C. Rathjens, Aug. 1931	Arabia, Yemen, Sanaa	Y	*27
	Asmara	*punctata*	*Heteracris punctata*	P	2	2♀	Uvarov, 1936	C. Rathjens, Aug. 1931	Arabia, Yemen, Sanaa	Y	*27
9	*Asphingoderus*	*uvarovites elazigi*	*Asphingoderus elazigi*	P	2	1♂ 1♀	Demirsoy, 1979	A. Demirsoy, 15.07.1971	Turkey, Elazig	N	*7
10	*Austracris*	*guttulosa talawensis*	-	P	2	1♂ 1♀	Sjöstedt, 1932	H. Fruhstorfer, 06.03.1898	Indonesia, Flores	Y	*24
11	*Bibracte*	*marginata*	-	H	1	1♂	Willemse, 1931	Alb. Grubauer, 30.12.1902	Indonesia, Camp Jor, watershed between Perak and Pahang	Y	*32
12	*Caparra*	*amiculi*	SYN *Urnisa rugosa*	H	1	1♀	Sjöstedt, 1921	Hamb. S. W. Austr. Expedition 1905	South-West Australia, north of Subiaco, Stat. 109	Y	*22
13	*Caperrala*	*scabra*	-	H	1	1♀	Sjöstedt, 1921	Hamb. S. W. Austr. Expedition, 07.09.1905	Australia, Edel Land	Y	*22
14	*Cedarinia*	*costata*	-	P	1	1♀	Sjöstedt, 1921	Museum Stockholm, Mjöberg, 30.04.1921	Australia, Queensland, Tolga	Y	*22
15	*Cedarinia*	*scabra*	SYN *Cedarinia vermiculata*	H	1	1♀	Sjöstedt, 1921	Museum Godeffroy	Australia, Queensland, Rockhampton	Y	*22
16	*Cedarinia*	*variegata*	SYN *Cedarinia vermiculata*	H	1	1♀	Sjöstedt, 1921	Museum Godeffroy	Australia, Queensland, Peak-Downs	Y	*22
17	*Clepsydria*	*fuliginosa*	SYN *Clepsydria historio*	P	4	2♂ 2♀	Sjöstedt, 1920	Museum Godeffroy, No. 80011	Australia, Queensland, Bowen	Y	*21
18	*Desertaria*	*cinnamomea*	SYN *Desertaria cinnam*	P	1	1♀	Sjöstedt, 1920	Museum Stockholm, Mjöberg, 30.04.1921	Australia, Kimberley district	Y	*21
19	*Dichroplus*	*cliens*	-	P	1	1♀	Stal, 1861	Museum Stockholm, 01.09.1922	Uruguay, Monte Video	Y	*26
20	*Exarna*	*includens*	-	H	1	1♀	Walker, 1870	Australien, alte Sammlung	?	Y	*28
	Exarna	*includens*	-	P	1	1♂	Walker, 1870	Stal, No. 15844	Australia, Queens Land, Gayndah	Y	*28
21	*Fenestra*	*bohlsii*	-	H	1	1♂	Giglio Tos, 1895	J. Bohls, 10.01.1895	Paraguay	Y	*10
22	*Gastrimargus*	*africanus orientalis*	SYN *Gastrimargus africanus africanus*	P	1	1♀	Sjöstedt, 1928	Boltze, 1902	India, Hinterland of Assam	Y	*23

No.	Genus	Species	Current taxonomy	Type	Count	Sex	Author, year	Collector, year	Location	Weidner	Ref.
	Gastrimargus	*africanus orientalis*	SYN *Gastrimargus africanus africanus*	P	1	1♀	Sjöstedt, 1928	Boltze, 1902	East India	Y	*23
23	*Gastrimargus*	*africanus v. zebrata*	SYN *Gastrimargus africanus africanus*	P	1	1♂	Sjöstedt, 1928	?	Kamerum, Sikumba near Maputa	Y	*23
	Gastrimargus	*africanus v. zebrata*	SYN *Gastrimargus africanus africanus*	P	1	1♀	Sjöstedt, 1928	?	Kamerum, Sikumba near Maputa	Y	*23
	Gastrimargus	*africanus v. zebrata*	SYN *Gastrimargus africanus africanus*	P	2	2♀	Sjöstedt, 1928	?	Kamerum, Mukonjjefarm am Mungofluß bei Mundame	Y	*23
	Gastrimargus	*africanus v. zebrata*	SYN *Gastrimargus africanus africanus*	P	1	1♀	Sjöstedt, 1928	?	Massai land	Y	*23
	Gastrimargus	*africanus v. zebrata*	SYN *Gastrimargus africanus africanus*	P	1	1♀	Sjöstedt, 1928	1893	Togo, Misahöhe	Y	*23
24	*Gastrimargus*	*brevipes v. abessina*	SYN *Gastrimargus verticalis verticalis*	P	1	1♂	Sjöstedt, 1928	C. v. Erlangen, 7.12.1900	East Africa, Abessinien, Wonda (near Malke)	Y	*23
25	*Gastrimargus*	*clepsydrae*	SYN *Gastrimargus crassicollis*	H	1	1♀	Sjöstedt, 1928	?	Transvaal, Johannesburg	Y	*23
26	*Gastrimargus*	*floresensis*	SYN *Gastrimargus lombokensis*	H	1	1♂	Sjöstedt, 1928	H. Fruhstorfer, 05.06.1899	Indonesia, Flores	Y	*23
27	*Gastrimargus*	*musicus v. kimberleyensis*	SYN *Gastrimargus musicus*	P	1	1♀	Sjöstedt, 1928	Museum Stockholm, Mjöberg, Jan. 1928	Australia, Kimberley District	Y	*23
28	*Gastrimargus*	*transvaalensis*	SYN *Gastrimargus crassicollis*	P	2	2♀	Sjöstedt, 1928	Frau Will, 04.10.1902	South Africa, Johannesburg, Transvaal	Y	*23
29	*Gastrimargus*	*volkensi arabicus*	SYN *Gastrimargus determinatus arabicus*	H	1	1♂	Uvarov, 1936	Dr. C. Rathjens, Aug. 1931	Arabia, Yemen, Sanaa	Y	*27
30	*Goniaea*	*acuta*	SYN *Goniaea vocans*	P	1	1♂	Sjöstedt, 1921	Museum Godeffroy	Australia, Queensland, Rockhampton	Y	*22
31	*Goniaea*	*glaucipes*	SYN *Goniaea opomaloides*	H	1	1♀	Sjöstedt, 1921	H. Rolle, 26.10.1903	Australia, Victoria, Alexandra	Y	*22
32	*Goniaea*	*macronotum*	SYN *Goniaea australasiae*	P	3	2♂ 1♀	Sjöstedt, 1921	?	Australia, Queensland, Peak-Downs	Y	*22
33	*Goniaea*	*vinaceipennis*	SYN *Goniaea opomaloides*	H	1	1♀	Sjöstedt, 1921	Hamb. S. W. Austr. Expedition, 09-16.05.1905	Australia, Perth, north of Subiaco	Y	*22
34	*Goniaeoidea*	*jucunda*	SYN *Goniaeoidea modesta*	H	1	1♂	Sjöstedt, 1921	Museum Godeffroy	Australia, Queensland, Bowen	Y	*22
35	*Heteropternis*	*respondens insularis*	-	H	1	1♂	Willemse, 1965	Le Moult, 1936	Java, Kangean	Y	*37
36	*Hyalorrhipis*	*turcmena grandis*	-	P	2	1♂ 1♀	Bey-Bienko, 1960	Richter and Schäuffele, 11-21.04.1954	Iran, Belutschistan, Iranshar, 800m	Y	*2
37	*Lobopteria*	*pulchra*	-	P	1	1♂	Sjöstedt, 1920	Museum Stockholm, Mjöberg, 30.04.1921	Australia, Queensland, Tolga	Y	*21
38	*Loiteria*	*rubripes*	-	H	1	1♀	Sjöstedt, 1921	Museum Godeffroy, No. 15880	Australia, Queensland, Rockhampton	Y	*22
39	*Opiptacris*	*salomona*	-	H	1	1♀	Ramme, 1941	Südsee-Exp. Wolf, 29.08.1909	Salomon Islands, Buka	Y	*20
40	*Oxyblepta*	*bohlsii*	*Stenopola bohlsii*	H	1	1♀	Giglio-Tos, 1895	?	Paraguay	Y	*10
41	*Oxytauchira*	*elegans*	-	H	1	1♂	Willemse, 1965	Le Moult, 1936	Java	Y	*37
42	*Paratraulia*	*elegantula*	SYN *Tauchira rufotibialis*	P	1	1♂	Willemse, 1930	E. Jacobson, Feb. 1920	Sumatra, Westcoast, Tandjunggadang, 1200m	Y	*31
43	*Pardillana*	*ampla*	-	P	1	1♂	Sjöstedt, 1920	Museum Stockholm, 30.04.1921	Australia, Kimberley District	Y	*21
44	*Peakesia*	*affinis*	SYN *Desertaria lepida*	H	1	1♂	Sjöstedt, 1921	Museum Godeffroy	Australia, Queens Land, Gayndah	Y	*22
45	*Peakesia*	*coeruleipes*	-	P	2	1♂ 1♀	Sjöstedt, 1920	Museum Godeffroy	Australia, Queensland, Peak-Downs	Y	*21
46	*Perbellia*	*brevialata*	-	H	1	1♂	Sjöstedt, 1921	Museum Godeffroy	Australia, Queensland, Bowen	Y	*22
47	*Perbellia*	*picta*	-	P	1	1♂	Sjöstedt, 1920	Museum Stockholm, Mjöberg, 30.04.1921	Australia, Kimberley District	Y	*21
48	*Phaulacridium*	*nanum*	-	P	1	1♀	Sjöstedt, 1921	Museum Godeffroy	Australia, Sidney	Y	*22
49	*Phlaeoba*	*lombokensis*	*Phlaeobella lombokensis*	P	2	2♂	Willemse, 1933	H. Fruhstorfer, May to June 1896	Indonesia, Lombok, Sapit, 2000m	Y	*34
50	*Podismopsis*	*relicta*		T	2	1♂ 1♀	Ramme, 1931	Willemse, 04.08.1965	Jugoslavia (=Montenegro), (Sbrija-Kosmet, Poc), Hajla-Cafe e Mustafes), 1900-2100m	N	#2 *19

No.	Genus	Species	Current taxonomy	Type	Count	Sex	Author, year	Collector, year	Location	Weidner	Ref.
51	*Porraxia*	*nana*	-	H	1	1♀	Sjöstedt, 1921	Hamb. S. W. Austr. Exped. 12.05.1905	Australia, Tubiaco forest	Y	*22
52	*Pseudogmo*	*megalocephala*	SYN *Pseudogmothela pallida*	H	1	1♂	Kevan, 1955	Hamb. Angola Expedition, Nr 2, 30.04.1953	Angola, Sanguengue, highlands of Nova Lisboa, 30km to Bela Vista	Y	*16
53	*Pseudostauronotus*	*brunneri*	*Rhammatocerus brunneri*	H	1	1♂	Giglio Tos, 1895	?	Paraguay	Y	*10
54	*Pycnodictya*	*diluta*	-	P	1	1♀	Ramme, 1929	Houy, Oct. 1912	Africa, Adamaua, near Garua and Rei Buba to Monti, 300-500m	Y	*18
55	*Pycnodictya*	*gracilis*	-	P	4	2♂ 2♀	Uvarov, 1936	C. Rathjens, Aug. 1931	Arabia, Yemen, Sanaa	Y	*27
	Pycnodictya	*gracilis*	-	P	1	1♀	Uvarov, 1936	12.-14.03.1928	Arabia, Yemen, Sanaa-Manakha	Y	*27
	Pycnodictya	*gracilis*	-	P	2	1♂ 1♀	Uvarov, 1936	C. Rathjens, Apr. 1931	Arabia, Yemen, Hadja	Y	*27
56	*Rapsilla*	*fusca*	-	P	1	1♂	Sjöstedt, 1921	Museum Godeffroy, No. 2719	Australia, New-South-Wales	Y	*22
	Rapsilla	*fusca*	-	P	1	1♀	Sjöstedt, 1921	Nelles, 24.05.1898	Australia, New-South-Wales	Y	*22
57	*Rapsilla*	*testacea*	SYN *Rapsilla fusca*	H	1	1♀	Sjöstedt, 1921	Nelles, 24.05.1898	Australia, New-South-Wales	Y	*22
58	*Rhitzala*	*modesta*	-	P	1	1♀	Sjöstedt, 1921	Museum Godeffroy, No. 15893	Australia, Sidney	Y	*22
59	*Schistocerca*	*centralis*	-	P	3	2♂ 1♀	Dirsh, 1974	R. Paessler, 04-06.05.1912	Costa Rica, Punta Arenas	Y	*9
	Schistocerca	*centralis*	-	P	3	2♂ 1♀	Dirsh, 1974	R. Paessler, 04-06.05.1912	Central America, Corinto, 12°29'N 84°14'25W	Y	*9
60	*Schizobothrus*	*flavovittatus*	-	P	1	1♀	Sjöstedt, 1921	Hamb. S. W. Austr. Expedition 1905	Australia, Perth, north of Subiaco, Stat. 109	Y	*22
61	*Sphodromerus*	*rathjensi rathjensi*	-	H	1	1♀	Uvarov, 1936	C. Rathjens, Sep. 1931	Arabia, Yemen, Sanaa	Y	*27
62	*Stenocatantops*	*cornelii*	-	P	4	2♂2♀	Willemse, 1968	Le Moult, 1936	Java, Semarang	Y	*38
	Stenocatantops	*cornelii*	-	P	2	1♂1♀	Willemse, 1968	Le Moult, May 1936	Java, Mt. Djampang	Y	*38
	Stenocatantops	*cornelii*	-	P	1	1♀	Willemse, 1968	Le Moult, May 1936	Java, Radjamandala	Y	*38
	Stenocatantops	*cornelii*	-	P	1	1♀	Willemse, 1968	Le Moult, May 1936	Java, Penandjoeng	Y	*38
63	*Stropis*	*nigrovitellina*	-	P	1	1♂	Sjöstedt, 1920	Museum Stockholm, Mjöberg, 30.04.1921	Australia, Kimberley District	Y	*21
64	*Stropis*	*viridis*	SYN *Stropis nigrovitellina*	P	1	1♀	Sjöstedt, 1920	Museum Stockholm, Mjöberg, 30.04.1921	Australia, Kimberley District	Y	*21
65	*Terpillaria*	*picta*	SYN *Macrocara conglobata*	P	1	1♀	Sjöstedt, 1921	Museum Godeffroy, No. 7989	Australia, Queensland, Bowen	Y	*22
66	*Terpillaria*	*pulchra*	-	P	1	1♂	Sjöstedt, 1921	Museum Stockholm, Mjöberg, 30.04.1921	Australia, Kimberley District	Y	*21
67	*Trachypetrella*	*kosswigiana*	*Trachypetrella anderssonii*	H	1	1♀	Weidner, 1964	H. Rolle, 14.06.1905	Africa, Tanganyika, Lake Tanganyika	Y	*29
68	*Urnisa*	*gutulosa minor*		L	1	1♀	Sjöstedt, 1921	W. Wölting, 1907	West Australia, Fremantle	Y	#1 *22
	Urnisa	*gutulosa minor*		PL	1	1♀	Sjöstedt, 1921	W. Wölting, 1907	West Australia, Fremantle	Y	#1 *22
69	*Valanga*	*irregularis carolinensis*	*Valanga nigricornis carolinensis*	H	1	1♀	Sjöstedt, 1932	Museum Godeffroy	Caroline Islands, Ruck	Y	*24
70	*Valanga*	*irregularis v. signata*	-	P	2	1♂ 1♀	Sjöstedt, 1921	Museum Godeffroy	Australia, Queensland, Rockhampton	Y	*22
71	*Valanga*	*modesta*	-	P	1	1♀	Sjöstedt, 1921	Museum Godeffroy	Australia, Queens Land, Gayndah	Y	*22
72	*Valanga*	*nigricornis v. aroensis*	-	P	1	1♂	Sjöstedt, 1932	Brunner von Wattenwyl, 1889	Indonesia, Aru-Islands	Y	*24

No.	Genus	Species	Current taxonomy	Type	Count	Sex	Author, year	Collector, year	Location	Weidner	Ref.
73	*Valanga*	*nobilis miokoana*	-	H	1	1♀	Sjöstedt, 1932	?	Mioko	Y	*24
74	*Valanga*	*rubrispinarum*	-	P	1	1♀	Sjöstedt, 1936	Museum Godeffroy	Australia, Queensland, Rockhampton	Y	*25
75	*Valanga*	*soror*	-	L	1	1♂	Sjöstedt, 1936	Museum Goddefroy	Australia, Queens Land, Gayndah	Y	*25 #1
	Valanga	*soror*	-	P	1	1♀	Sjöstedt, 1936	Museum Goddefroy	Australia, Queens Land, Gayndah	Y	*25
76	*Valanga*	*viridipes*	SYN *Valanga nigricornis carolinensis*	H	1	1♀	Sjöstedt, 1932	?	Caroline Islands, Ruck	Y	*24
77	*Xenocatantops*	*dirshi*	-	P	6	6♀	Willemse, 1968	Le Moult, 1936	Java, Kangean	Y	*38
78	*Xenocatantops*	*humilis*		T	1	1♂	Serville, 1838	Le Moult, 1936	Java, Penandjoeng	N	#2 *1
	Xenocatantops	*humilis*	-	T	2	2♂	Serville, 1838	Le Moult, 1936	Java, Mt. Djampang	N	#2 *1
	Xenocatantops	*humilis*	-	T	2	2♀	Serville, 1838	Le Moult, Oct. 1936	Java, Radjamendal	N	#2 *1
	Xenocatantops	*humilis*	-	T	2	2♀	Serville, 1838	Le Moult, Oct. 1936	Java	N	#2 *1
79	*Zebratula*	*flavonigra*	-	P	1	1♀	Sjöstedt, 1920	Museum Stockholm, Mjöberg, 30.04.1921	Australia, Kimberley District	Y	*21
Chorotypidae											
80	*Eupatrides*	*signatus*	-	H	1	1♂	Willemse, 1935	H. Fruhstorfer, Feb. 1896	Sulawesi, Samanga, South Celebes, Bua-Kraeng, 5000m	Y	*35
Morabidae											
81	*Callitala*	*major*	-	L	1	1♂	Sjöstedt, 1936	Museum Godeffroy	Australia, Queensland, Rockhampton	Y	#1 *22
	Callitala	*major*	-	PL	1	1♀	Sjöstedt, 1936	Museum Godeffroy	Australia, Queensland, Rockhampton	Y	#1 *22
82	*Moraba*	*amiculi*	*Heide amiculi*	P	2	2♀	Sjöstedt, 1921	Museum Godeffroy	Australia, New-South-Wales, Sidney	Y	*22
83	*Moraba*	*laticornis*	*Swanea laticornis*	H	1	1♀	Sjöstedt, 1921	Hamb. S. W. Austr. Expedition 1905	Australia, Bunswick, Stat. 139	Y	*22
84	*Moraba*	*obscura*	-	P	1	1♀	Sjöstedt, 1921	Hamb. S. W. Austr. Expedition 1905	Australia, Lion Mill, Stat. 139	Y	*22
85	*Moraba*	*parva*	*Amangu parva*	H	1	1♂	Sjöstedt, 1921	Hamb. S. W. Austr. Expedition 1905	Australia, Perth, Karrakatta, Stat. 139	Y	*22
Ommexechidae											
86	*Aucacris*	*hebardi*	SYN *Aucacris eumera*	H	1	1♀	Willemse, 1931	O. Voelckler, 06.02.1899	Chile	Y	*33
Pamphagidae											
87	*Paranocaracris*	*citripes bicoloripes f. marani*	SYN *Nocarodes bicoloripes*	P	1	1♂	Demirsoy, 1973	Zoologisch Botanische Exkursion 1964	Anatolia, Erciyas Dag	Y	*6
88	*Paranocarodes*	*fieberi anatoliensis*	*Paranocarodes anatoliensis*	P	1	1♀	Demirsoy, 1973	A. Demirsoy, 17.07.1949	Turkey, Antalya, Tahtali Dagi, ca. 1500m	Y	*6
89	*Paranothrotes*	*kosswigi*	SYN *Nocaracris*	P	1	1♀	Demirsoy, 1973	D. D. Hasan , 20.06.1968	Turkey, Erzincan-Kamaliye-Yuvaköyü (Bügelek Kayasi)	Y	*6
Proscopiidae											
90	*Altograciosa*	*mirabilis*	-	H	1	1♂	Liana, 1980	J. Hubrich	Argentina, Province Cordoba, La Granja, near Alta Gracia	N	*17
91	*Anchotatus*	*peruvianus*	-	S	1	1♀	Brunner von Wattenwyl, 1890	Brunner von Wattenwyl, 1889	Peru	Y	*5

No.	Genus	Species	Current taxonomy	Type	Count	Sex	Author, year	Collector, year	Location	Weidner	Ref.
92	*Anchotatus*	*similis*	-	H	1	1♂	Liana, 1980	F. Ohaus, 20.09.1905	Ecuador, Zaruma	N	*17
	Anchotatus	*similis*	-	P	1	1♀	Liana, 1980	F. Ohaus, 20.09.1905	Ecuador, Zaruma	N	*17
93	*Apioscelis*	*gracilis*	*SYN Apioscelis bulbosa*	P	2	1♂1♀	Brunner von Wattenwyl, 1890	11.12.1889	Peru, Alto Amazonas Province	Y	*5
94	*Astroma*	*carbonelli*	-	H	1	1♂	Liana, 1980	R. Paessler, 17.03.1914	Bolivia, Oruro	N	*17
95	*Astroma*	*plicatum*	-	H	1	1♀	Liana, 1980	Meteor Expedition, Dec. 1925	Cordillera, Poterillos near Mendoza	N	*17
	Astroma	*plicatum*	-	P	1	1♀	Liana, 1980	Meteor Expedition, Dec. 1925	Cordillera, Poterillos near Mendoza	N	*17
96	*Callangania*	*brunneri*	-	H	1	1♂	Liana, 1980	Dr. O. Staudinger, 20.05.1899	Peru, Callanga	N	*17
97	*Cephaloscopia*	*grisea*	*Anchotatus griseus*	H	1	1♀	Liana, 1973	R. Paessler, 02-08.10.1914	Chile, Coronel	N	*17
	Cephaloscopia	*grisea*	*Anchotatus griseus*	P	1	1♀	Liana, 1973	Jacobsen?, 12.05.1899	Chile, Concepción	N	*17
98	*Cephaloscopia*	*weidneri*	*Anchotatus weidneri*	H	1	1♀	Liana, 1973	Sammelreise 1936, 21.04.1936	South Peru, Cayara, ca. 3200m	N	*17
99	*Corynorhynchus*	*subtilis*	-	H	1	1♂	Liana, 1980	F. Ohaus	Brasilia, Petropolis	N	*17
	Corynorhynchus	*subtilis*	-	P	2	1♂1♀	Liana, 1980	F. Ohaus	Brasilia, Petropolis	N	*17
100	*Corynorhynchus*	*tibarisae*	-	H	1	1♂	Liana, 1980	F. Ohaus, 20.10.1926	Costa Rica S Paulo, Tibirisá	N	*17
	Corynorhynchus	*tibarisae*	-	P	2	1♂1♀	Liana, 1980	F. Ohaus, 20.10.1926	Costa Rica S. Paulo, Tibirisá, near Rio Parana	N	*17
	Corynorhynchus	*tibarisae*	-	P	1	1♀	Liana, 1980	F. Ohaus, 03.12.1926	Brasil, Rio de Janeiro, 900-1000m	N	*17
101	*Prosarthria*	*teretrirostris*	-	P	1	1♀	Brunner von Wattenwyl, 1890	H. Rode	Venezuela	Y	*5
102	*Pseudoanchotatus*	*jaczewski*	*Pseudoanchotatus jacsewskii*	H	1	1♀	Liana, 1980	C. Bock, 23.07.1903	Bolivia, Rio Sango	N	*17
103	*Tetanorhynchus*	*longirostris*	-	P	1	1♀	Brunner von Wattenwyl, 1890	H. Fruhstorfer, 12.02.1889	Brazilia, St. Catharina Province Theresopolis	Y	*5
104	*Tetanorhynchus*	*propinquus*	-	P	1	1♀	Brunner von Wattenwyl, 1890	Killmann?, 07.11.1889	Brazilia, St. Catharina Province, Joinville	Y	*5
105	*Xenium*	*saburrae*	-	H	1	1♀	Liana, 1980	?	Chile	N	*17
Pyrgomorphidae											
106	*Brunniella*	*antistes*	-	H	1	1♀	Bolivar, 1905	Alte Sammlung	Phillippines, Patria?	Y	*4
107	*Dictyophorus*	*grisea f. brunni*	-	H	1	1♀	Bolivar, 1904	Hamb. Geographische Gesellschaft, Fischer, 1884	Africa, Massai-Land	Y	*3
108	*Dictyophorus*	*spumans v. pulchra*	-	H	1	1♂	Bolivar, 1904	E. Heyne, 23.05.1900	South Africa, Natal, Marianhill	Y	*3
109	*Monistria*	*cordata*	SYN *Greyacris profundesulcata*	H	1	1♀	Sjöstedt, 1921	Museum Godeffroy	Australia, Queensland, Bowen	Y	*22
110	*Monistria*	*latevittata*	-	H	1	1♀	Sjöstedt, 1921	Hamb. S. W. Austr. Expedition, 23-25.09.1905	South-West-Australia, Serpentine	Y	*22
111	*Monistria*	*ligata*	-	H	1	1♀	Bolivar, 1904	?	Australia, New-South-Wales, Sidney	Y	*3
112	*Monistria*	*maculicornis*	-	P	1	1♀	Sjöstedt, 1921	Hamb. S. W. Austr. Expedition, 23-25.09.1905	W Austr., Serpentine	Y	*22
113	*Monistria*	*mastax*	-	H	1	1♂	Sjöstedt, 1921	Museum Godeffroy	Australia, Queensland, Rockhampton	Y	*22
114	*Paraspena*	*yemenita*		H	1	1♂	Uvarov, 1936	C. Rathjens, Aug. 1931	Arabia, Yemen, Sanaa	Y	*27
	Paraspena	*yemenita*		P	1	1♀	Uvarov, 1936	C. Rathjens, Aug. 1931	Arabia, Yemen, Sanaa	Y	*27
115	*Pyrgomorpha*	*minuta*	-	P	1	1♀	Kevan, 1963	E. R. Helwig, 03.01.1939	Africa, Cape Province, Cape Flats, False Bay, Cape Town	Y	*8
116	*Tanita*	*longiceps*	*Protanita longiceps*	H	1	1♀	Bolivar, 1904	Stuhlmann, 12.09.1888	Africa, Tanganyika, Kihenga	Y	*3

No.	Genus	Species	Current taxonomy	Type	Count	Sex	Author, year	Collector, year	Location	Weidner	Ref.
Tetrigidae											
117	*Allotettix*	*otumboides*	-	P	2	2♂	Günther, 1939	O. Staudinger, 20.05.1899	Peru, Callanga	Y	*13
118	*Bolivaritettix*	*difficilis*	-	P	2	2♀	Günther, 1939	H. Fruhstorfer, 10.02.1894	Java	Y	*13
119	*Chiriquia*	*compressa*	-	P	1	1♂	Günther, 1939	R. Haensch, 30.04.1903	Ecuador, Santa Inez	Y	*13
120	*Hyboella*	*overbecki*	-	P	1	1♀	Günther, 1939	Museum Marburg, 24.07.1901	Java	Y	*13
121	*Hyboella*	*perakensis*	-	H	1	1♀	Günther, 1939	A. Grubauer, 30.12.1902	Indonesia, Camp Jor, watershed between Perak and Pahang	Y	*13
122	*Loxilobus*	*brunneri*	-	H	1	1♀	Günther, 1938	H. Schrader, 1913	Nieder-Burma, near Rangoon a. Unterl. D. Irwati	Y	*12
123	*Loxilobus*	*kraepelini*	-	H	1	1♀	Günther, 1938	K. Kraepelin, 24.02-12.03.1904	Java, Buitenzorg	Y	*12
124	*Paratettix*	*amplus*	-	P	1	1♂	Sjöstedt, 1921	Museum Goddefroy, No. 15853	Australia, Queensland, Rockhampton	Y	*22
125	*Paratettix*	*meridionalis weidneri*	SYN *Paratettix meridionalis*	P	1	1♂ 2♀	Karaman, 1965	T. Becker, 1901	Canary Islands, Tenerife	Y	*15
126	*Systolederus*	*carli celebensis*	SYN *Systolederus ophthalmicus*	P	2	2♂	Günther, 1937	H. Fruhstorfer, Nov. 1895	Sulawesi, Samanga, South Celebes	Y	*11
Tridactylidae											
127	*Afrotridactylus*	*meridianus*	-	P	3	2♂1♀	Günther, 1994	W. Krieg, 1933-1934	South West Afrika, Okundua near Okahandja	N	*14
Trigonopterygidae											
128	*Systella*	*borneensis*	-	P	1	1♀	Willemse, 1930	H. Rolle, 25.11.1904	Borneo, Kinabalu, 1500m, Watersadt	Y	*30
129	*Systella*	*dusmeti*	-	PL	1	1♂	Bolivar, 1905	H. Rolle, 25.11.1904	Borneo, Kinabalu, 1500m, Watersadt	Y	*4
	Systella	*dusmeti*	-	PL	1	1♂	Bolivar, 1905	H. Fruhstorfer, 05.06.1899	North Borneo	Y	*4
	Systella	*dusmeti*	-	PL	1	1♀	Bolivar, 1905	A. Speyer, 20.11.1899	North Borneo	Y	*4
130	*Systella*	*philippensis*	*Systella siccifolia*	H	1	1♂	Walker, 1870	Patria, Alte Sammlung	Patria?	Y	*28

Literature: #1 Key (1958); #2 Willemse (1964); *1 Audinet-Serville (1839); *2 Bey-Bienko (1960); *3 Bolívar (1904); *4 Bolívar (1905); *5 Wattenwyl (1890); *6 Demirsoy (1973); *7 Demirsoy (1979); *8 Dirsh (1963); *9 Dirsh (1974); *10 Giglio-Tos (1895); *11 Günther (1937); *12 Günther (1938); *13 Günther (1939); *14 Günther (1994); *15 Karaman (1965); *16 Kevan (1955); *17 Liana (1980); *18 Ramme (1929); *19 Ramme (1931); *20 Ramme (1941); *21 Sjöstedt (1920); *22 Sjöstedt (1921); *23 Sjöstedt (1928); *24 Sjöstedt (1932); *25 Sjöstedt (1936); *26 Stål (1851); *27 Uvarov (1936); *28 Walker (1870); *29 Weidner (1964); *30 Willemse (1930)a; *31 Willemse (1930)b; *32 Willemse (1931)a; *33 Willemse (1931)b; *34 Willemse (1933); *35 Willemse (1935); *36 Willemse (1936); *37 Willemse (1965); *38 Willemse (1968)

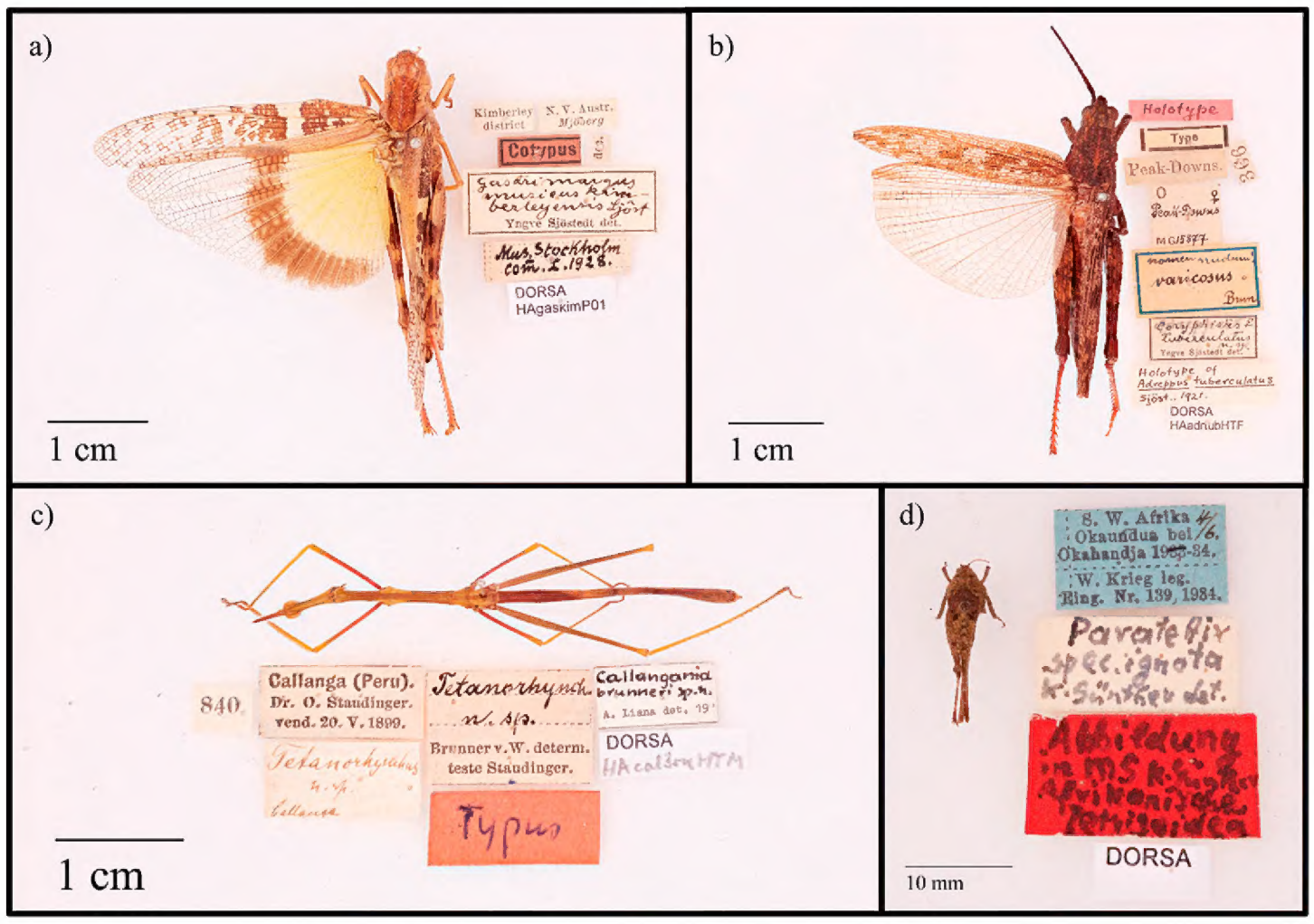

Figure 1. Shown are **a**) a cotype of *Gastrimargus musicus* v. *kimberleyensis* Sjöstedt, 1928; **b**) the holotype of *Adreppus tuberculatus* Sjöstedt, 1921; **c**) the holotype of *Callangania brunneri* Liana, 1980; and **d**) the tentative type of a Tetrigid, identified as unknown, but not formally described by Kurt Günther and their labels.

order Orthoptera and member of the Museum Godeffroy, worked with the collection of the ZMH (Weidner 1967). Hence, major parts of the Caelifera collection goes back to the Museum Godeffroy, a private collection belonging to a leader of a big trade company in the 18th century. Shortly after the Godeffroy Company bankrupted, most of the collections of the museum were sold and the zoological material was largely transferred to the ZMH in 1885 (Weidner 1967). Additional material now housed in the ZMH was collected during several expeditions by scientists of the Museum Hamburg (e.g. to Africa (Fischer 1884) and southwestern Australia (Michaelson 1908)) or was donated from researchers or private collectors. Many other important orthopterists worked with the collection and designated and deposited types; these include Boris Petrovitch Uvarov, D. Keith Mc. E. Kevan, Carl Stål, Grigory Yakovlevich Bey-Bienko, Willi Adolf Theodor Ramme, V. M. Dirsh, Jean-Guillaume Audinet-Serville, Ali Demirsoy, Anna Liana, Ignatio Bolivar, and Cornelis and Fer Willemse.

The collection currently houses 209 type specimens of Caelifera belonging to 128 species; 65 species are represented by holotypes (Table 1), three by lectotypes and one by a syntype. Besides a large number of paratypes and paralectotypes, the collection also houses topotypes of two species, which are not regulated by the International Code of Zoological Nomenclature, but are listed here for completeness. Type material of 120 species was recorded in previous catalogues presented by Weidner and Wagner (1968) and Weidner (1977). All previously recorded types were recovered, except the material of three species, which was already recorded as burned or missing by Weidner and Wagner (1968) (*Cephalocoema teretiuscula*, Brunner von Wattenwyl, 1890; *Rhipipteryx striatipes*, Chopard 1954; *Tridactylus emarginatus*, Chopard 1954). Further, the status of some species was not clear in Weidner's catalogues and some species were recorded twice in the list; 115 of the species recorded by Weidner are also recorded here. Type material of 13 species has been deposited in the collection since the last catalogue.

In addition to ZMH types reported here, other specimens originally designated as type, but not formally published, are present in the collection (Fig. 1d); this material is not listed here. An example comes from the genus *Paratettix*: Günther (1979) mentioned material of the genus, which likely belongs to an undescribed species. This material is marked as such in the collection, but a new species was never formally described. Further, it is likely that additional types, not marked as such, are present; especially the material of the Collection Godeffroy is likely to contain additional type specimens. Experts of the respective groups are needed to investigate and work with the collection. This paper is one of the first in a row of reports to be published in the next years to present updated type catalogues of the insect collection of the ZMH (now part of the CeNak).

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